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4 RESEARCH DRIVE
SHELTON, CT 06484-6212

EXAMINER

BRUCKART, BENJAMIN R

ART UNIT	PAPER NUMBER
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2155

DATE MAILED: 07/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/768,586

Applicant(s)

DELLARIA, ET AL.

Examiner

Benjamin R Bruckart

Art Unit

2155

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 January 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

Art Unit: 2155

Detailed Action

Claims 1-20 are pending in this Office Action.

Change of Address

The change of address received on 11/13/02 has been entered.

Formal Drawings

The formal drawings received on 6/4/01 have been entered.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-2, 4-5, 10-11, 13 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Publication No 2002/0133573 by Matsuda et al.

Regarding claim 1, a computer implemented method for discovering data communication network configuration information (Matsuda: page 3, paragraphs 35-36), comprising steps of:

invoking a network discovery function (Matsuda: page 3, paragraphs 35-36);
executing the invoked network discovery function for examining the network using individual ones of a plurality of network configuration discovery protocols (Matsuda: page 3, paragraphs 34-36); and

during the execution of the step of examining, building a list containing discovered network configuration information (Matsuda: page 3, paragraph 36).

Art Unit: 2155

Regarding claim 2, a method as in claim 1, wherein the plurality of network configuration discovery protocols comprise a set of protocols selected from a Salutation protocol, a Service Location Protocol (SLP) (Matsuda: page 8, paragraph 85), a Lightweight Directory Access Protocol (LDAP), Domain Name Services (DNS) protocols (Matsuda: page 3, paragraph 34), and a Dynamic Host Configuration Protocol (DHCP) (Matsuda: page 3, paragraph 34).

Regarding claim 4, a method as in claim 1, wherein during the execution of the step of examining the network using individual ones of the plurality of network configuration discovery protocols, the individual ones of the plurality of network configuration discovery protocols are executed sequentially (Matsuda: Figure 6; page 6, paragraph 60; dhcp then dns is an order).

Regarding claim 5, a method as in claim 4, wherein the plurality of network configuration discovery protocols are executed in a sequence comprised of a Salutation protocol, a Service Location Protocol (SLP) (Matsuda: page 8, paragraph 85), a Lightweight Directory Access Protocol (LDAP), Domain Name Services (DNS) protocols (Matsuda: page 3, paragraph 34), and a Dynamic Host Configuration Protocol (DHCP) (Matsuda: page 3, paragraph 34).

Regarding claim 10, a digital data storage media that is readable by a computer and that stores a software program that implements a process for discovering data communication network configuration information (Matsuda: page 3, para 30-31), the software program causing the computer to operate so as to invoke a network discovery function (Matsuda: page 3, para 35-36), to execute the invoked network discovery function to examine the network using individual ones of a plurality of network configuration discovery protocols (Matsuda: page 3, para 34-36) and, during the network examination, to build a list containing discovered network configuration information (Matsuda: page 3, para 36).

Art Unit: 2155

Regarding claim 11, a digital data storage media as claimed in claim 10, wherein the plurality of network configuration discovery protocols comprise a set of protocols selected from a Salutation protocol, a Service Location Protocol (SLP) (Matsuda: page 8, paragraph 85), a Lightweight Directory Access Protocol (LDAP), Domain Name Services (DNS) protocols (Matsuda: page 3, paragraph 34), and a Dynamic Host Configuration Protocol (DHCP) (Matsuda: page 3, paragraph 34).

Regarding claim 13, a digital data storage media as claimed in claim 10, wherein the computer executes individual ones of the plurality of network configuration discovery protocols sequentially in a sequence comprised of a Salutation protocol, a Service Location Protocol (SLP) (Matsuda: page 8, paragraph 85), a Lightweight Directory Access Protocol (LDAP), Domain Name Services (DNS) protocols (Matsuda: page 3, paragraph 34), and a Dynamic Host Configuration Protocol (DHCP) (Matsuda: page 3, paragraph 34) Figure 6; page 6, paragraph 60; dhcp then dns is an order).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Publication No. 2002/0133573 by Matsuda et al in view of U.S. Patent No. 5,937,162 by Funk et al.

Claims 6-9, 14-17, 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Publication No. 2002/0133573 by Matsuda et al in view of U.S. Patent No. 5,128,926 by Perlman et al.

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Publication No. 2002/0133573 by Matsuda et al in view of U.S. Patent No. 5,128,926 by Perlman et al in further view of U.S. Patent No. 5,937,162 by Funk et al.

Art Unit: 2155

Regarding claim 3,

The Matsuda reference teaches a method as in claim 2, for discovering network configuration information with DNS protocols.

The Matsuda reference does not explicitly state using specific DNS protocols.

The Funk reference teaches discovering network configuration information through DNS wherein the DNS protocols comprise at least one of a DNS SRV Record protocol, a DNS MX Record protocol (Funk: col. 2, lines 46-51; col. 11, lines 64- col. 12, line 6), a DNS Start of Authority Protocol, a DNS NS protocol and a DNS PTR protocol.

The Funk reference further teaches by relieving the queues of the responsibility of querying the Internet DNS, and by querying the Internet ahead of the scheduled e-mail delivery time the DNS server speeds message delivery (Funk: col. 12, lines 6-11).

Therefore it would have been obvious at the time of the invention to one of ordinary skill in the art to use DNS protocols to discover network configuration information as taught by Matsuda while employing DNS MX Record protocol as taught by Funk in order to speed up message delivery (Funk: col. 12, lines 6-11).

Regarding claim 12,

The Matsuda reference teaches the digital data storage media as claimed in claim 11, for discovering network configuration information with DNS protocols.

The Matsuda reference does not explicitly state using specific DNS protocols.

The Funk reference teaches discovering network configuration information with DNS wherein the DNS protocols comprise at least one of a DNS SRV Record protocol, a DNS MX Record protocol (Funk: col. 2, lines 46-51; col. 11, lines 64- col. 12, line 6), a DNS Start of Authority Protocol, a DNS NS protocol and a DNS PTR protocol.

The Funk reference further teaches by relieving the queues of the responsibility of querying the Internet DNS, and by querying the Internet ahead of the scheduled e-mail delivery time the DNS server speeds message delivery (Funk: col. 12, lines 6-11).

Therefore it would have been obvious at the time of the invention to one of ordinary skill in the art to use protocols to discover network configuration information as

Art Unit: 2155

taught by Matsuda while employing DNS MX Record protocol as taught by Funk in order to speed up message delivery (Funk: col. 12, lines 6-11).

Regarding claim 6,

The Matsuda reference teaches a method as in claim 1, wherein a list containing discovered network configuration information is stored.

The Matsuda reference does not explicitly state storing the list in a database but does talk about a distributed database.

The Perlman reference teaches a list stored as a location object in a persistent database (Perlman: col. 4, lines 29-41).

The Perlman reference further teaches using link state packets and complete number sequences to update their databases while reducing the probability of errors and computational burden on routers (Perlman: col. 3, lines 8-25).

Therefore it would have been obvious at the time of the invention to one of ordinary skill in the art to create a list of discovered network configuration information as taught by Matsuda while storing it in a database as taught by Perlman in order to reduce the probability of errors and computation burden on routers while updating databases (Perlman: col. 3, lines 8-25).

Claims 7-9 are rejected under the same rationale given above. In the rejections set forth, the examiner will address the additional limitations and point to the relevant teachings of Perlman et al and Matsuda et al.

Regarding claim 7, a method as in claim 6, wherein a location object may be imported into the persistent database (Perlman: col. 7, lines 23-31), or exported from the persistent database (Perlman: col. 6, lines 40-51; removed or col. 5, lines 41-63).

Regarding claim 8, a method as in claim 6, wherein a location object may be exported from the persistent database (Perlman: col. 5, lines 41-63), and made available to be imported into another persistent database (Perlman: col. 6, lines 7-34).

Art Unit: 2155

Regarding claim 9, a method as in claim 6, wherein an application program queries the persistent database for a location object, and uses the network configuration information stored in the location object while connected to a network from which the location object was derived (Perlman: col. 6, lines 15-18; col. 10, lines 49-63; cost; col. 1, lines 20-30).

Regarding claim 14,

The Matsuda reference teaches the digital data storage media as claimed in claim 10, for discovering network configuration information and building a list containing discovered network configuration information is stored.

The Matsuda reference does not explicitly state storing the list in a database but does talk about a distributed database.

The Perlman reference teaches wherein the computer causes the list to be stored as a location object in a persistent database (Perlman: col. 4, lines 29-41), wherein a location object may be imported into the persistent database (Perlman: col. 7, lines 23-31), or exported from the persistent database (Perlman: col. 5, lines 41-63), and wherein a location object may be exported from the persistent database and made available to be imported into another persistent database (Perlman: col. 6, lines 7-34).

The Perlman reference further teaches using link state packets and complete number sequences to update their databases while reducing the probability of errors and computational burden on routers (Perlman: col. 3, lines 8-25).

Therefore it would have been obvious at the time of the invention to one of ordinary skill in the art to create a list of discovered network configuration information as taught by Matsuda while storing it in a database as taught by Perlman in order to reduce the probability of errors and computation burden on routers while updating databases (Perlman: col. 3, lines 8-25).

Claim 15 is rejected under the same rationale given above. In the rejections set forth, the examiner will address the additional limitations and point to the relevant teachings of Perlman et al and Matsuda et al.

Art Unit: 2155

Regarding claim 15, a digital data storage media as claimed in claim 14, wherein the computer operates to respond to an application program that queries the persistent database for a location object, to return the location object to the application for use by the application while connected to a network from which the location object was derived (Perlman: col. 6, lines 15-18; col. 10, lines 49-63; cost; col. 1, lines 20-30).

Regarding claim 16,

The Matsuda reference teaches a digital data processing system comprising a data processor, a memory, and at least one network adapter for attaching the data processor to a data communication network (Matsuda: page 3, para 31-32), said memory storing a software program that controls said data processor for discovering data communication network configuration information by examining the network using individual ones of a plurality of network configuration discovery protocols (Matsuda: page 3, para 34-36) and, during the network examination, said location object containing discovered network configuration information for use by an application while attached to the network (Matsuda: page 3, paragraph 36).

The Matsuda reference teaches the memory but does not explicitly state a database.

The Perlman reference teaches storing a location object in a persistent database portion of memory (Perlman: col. 4, lines 29-41).

The Perlman reference further teaches using link state packets and complete number sequences to update their databases while reducing the probability of errors and computational burden on routers (Perlman: col. 3, lines 8-25).

Therefore it would have been obvious at the time of the invention to one of ordinary skill in the art to create a list of discovered network configuration information as taught by Matsuda while storing it in a database as taught by Perlman in order to reduce the probability of errors and computation burden on routers while updating databases (Perlman: col. 3, lines 8-25).

Art Unit: 2155

Claim 17, 19-20 are rejected under the same rationale given above. In the rejections set forth, the examiner will address the additional limitations and point to the relevant teachings of Perlman et al and Matsuda et al.

Regarding claim 17, a digital data processing system as claimed in claim 16, wherein the plurality of network configuration discovery protocols comprise a set of protocols selected from a Salutation protocol, a Service Location Protocol (SLP) (Matsuda: page 8, paragraph 85), a Lightweight Directory Access Protocol (LDAP), Domain Name Services (DNS) protocols (Matsuda: page 3, paragraph 34), and a Dynamic Host Configuration Protocol (DHCP) (Matsuda: page 3, paragraph 34).

Regarding claim 19, a digital data processing system as claimed in claim 16, wherein the data processor is controlled to execute individual ones of the plurality of network configuration discovery protocols sequentially in a sequence comprised of a Salutation protocol, a Service Location Protocol (SLP) (Matsuda: page 8, paragraph 85), a Lightweight Directory Access Protocol (LDAP), Domain Name Services (DNS) protocols (Matsuda: page 3, paragraph 34), and a Dynamic Host Configuration Protocol (DHCP) (Matsuda: page 3, paragraph 34) Figure 6; page 6, paragraph 60; dhcp then dns is an order).

Regarding claim 20, a digital data processing system as claimed in claim 16, wherein a location object may be imported into the persistent database (Perlman: col. 7, lines 23-31), or exported from the persistent database (Perlman: col. 5, lines 41-63), and wherein a location object may be exported from the persistent database and made available to be imported into another persistent database (Perlman: col. 6, lines 7-34).

Regarding claim 18,

The Matsuda and Perlman references teach a digital data processing system as claimed in claim 17 for discovering network resources and storing them in a database.

Art Unit: 2155

The Matsuda and Perlman references do not explicitly state DNS protocol specifics.

The Funk reference teaches wherein the DNS protocols comprise at least one of a DNS SRV Record protocol, a DNS Mx Record protocol (Funk: col. 2, lines 46-51; col. 11, lines 64- col. 12, line 6), a DNS Start of Authority Protocol, a DNS NS protocol and a DNS PTR protocol.

The Funk reference further teaches by relieving the queues of the responsibility of querying the Internet DNS, and by querying the Internet ahead of the scheduled e-mail delivery time the DNS server speeds message delivery (Funk: col. 12, lines 6-11).

Therefore it would have been obvious at the time of the invention to one of ordinary skill in the art to use protocols to discover network configuration information as taught by Matsuda and Perlman while employing DNS MX Record protocol as taught by Funk in order to speed up message delivery (Funk: col. 12, lines 6-11).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Benjamin R Bruckart whose telephone number is (703) 305-0324. The examiner can normally be reached on 8:00-5:30 PM with every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain Alam can be reached on (703) 308-6662. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-0324.

Benjamin R Bruckart
Examiner
Art Unit 2155
brb
June 21, 2004

brb


ZARNI MAUNG
PRIMARY EXAMINER